PHYSICS

COURSE REQUIREMENTS — FALL 2013 / SPRING 2014

- **Required courses for a major in Physics.**

CORE Requirements	Credits
CORE 090 First Yr Exp.	1
CORE 100 Lib Arts Sem.	3
CORE 110 Effect Writ.	3
CORE 115/116 Oral Com.	3
CORE 131/133 Civilization	3
CORE 14x Forgn. Lng/Cult	3
CORE 15x[1] Soc. Sci.	3
CORE 16x Literature	3
CORE 17x The Arts	3
CORE 18x[1] Amer. Studies	3
CORE 19x[1] Global Studies	3
CORE 25x Syst. Theology	3
CORE 26x Mor. Theology	3
CORE 280 Philos. I	3
CORE 28x Philos. II	3
Total Credits for CORE	43

Major Requirements	Credits
PHYS 111	3
PHYS 111L	1
PHYS 112	3
PHYS 112L	1
PHYS 231	3
PHYS 231L	1
PHYS 330	3
PHYS 350	3
PHYS 371	3
PHYS 440	3
PHYS 490	2
PHYS Elective	3
PHYS Elective	3
PHYS Elective†	3

Major Requirements	Credits
CHEM 113	3
CHEM 113L	1
CHEM 114	3
CHEM 114L	1
MATH 129	4
MATH 130	4
MATH 231	4
MATH 237	3
MATH 238	3
Total Credits for Major	61

Free Electives[2]	Credits
Free Elective	3
Free Elective	3
Free Elective	3
Free Elective	3
Free Elective	3
Free Elective	3
Total Credits for Free Electives	18

Total Credits Required for Graduation = 122

Physics Electives - In addition to the Major Sequence requirements, a Physics Major must also complete a minimum of three (3) upper-level PHYS courses numbered 231 or higher. Some elective courses have a required laboratory component. †One Physics Elective can be satisfied with 3-credits of student research.

Physics Electives			
PHYS 241*	PHYS 233*#	PHYS 372#	PHYS 340#
PHYS 242*	PHYS 234*	PHYS 320#	PHYS 450#

*Required for some 3+2 Engineering students
#Appropriate preparation courses for physics graduate programs

[1]Students are required to take CORE 150, CORE 180 **OR** CORE 190 to fulfill the Interdisciplinary CORE requirement.

- If a student takes CORE 150, then he/she should choose from 181 – 188 to fulfill the 18x requirement AND from 191 – 198 to fulfill the 19x requirement.
- If a student takes CORE 180, then he/she should choose from 151 – 158 to fulfill the 15x requirement AND from 191 – 198 to fulfill the 19x requirement.
- If a student takes CORE 190, then he/she should choose from 151 – 158 to fulfill the 15x requirement AND from 181 – 188 to fulfill the 18x requirement.

[2]Students may select "free electives" for personal enrichment **OR** for Minor and/or Second Major Requirements.

General Information:
A student must earn a minimum of 120 credit hours to be awarded the baccalaureate degree. The number of credit hours required for graduation may be higher in certain major programs **or** if the student elects to pursue a second major.
Beyond the requirements of the Core Curriculum and of a student's chosen major program, the balances of the credit hours required for graduation are "free electives."

See reverse side for a suggested sequence

PHYSICS

SUGGESTED SEQUENCE

- Use the information below as a guide when selecting courses.
- Refer to the reverse side when selecting major courses, major electives, core courses, and free electives when applicable.
- Consult your Academic Advisor prior to course registration.
- Refer to the King's College Catalog and/or website for course titles and descriptions.
- Choose one course from each CORE category as listed on the reverse side.
    - CORE courses may be taken in any order approved by the academic advisor with the following conditions:
        - CORE 100 and CORE 110 should be taken in the first available semesters.
        - CORE 115 (or 116) should be taken within the first two years.
        - CORE 098, CORE 099, and/or CORE 110L, if required, will fulfill elective credits.
        - For students selecting a Foreign Language (CORE 14x), every effort should be made to register for that language in the first available semester at King's.

	1st Year - Fall	cr.		**1st Year - Spring**	cr.
_____	PHYS 111 General Physics I	3	_____	PHYS 112 General Physics II	3
_____	PHYS 111L General Physics I Lab	1	_____	PHYS 112L General Physics II Lab	1
_____	CHEM 113 General Chemistry I	3	_____	CHEM 114 General Chemistry II	3
_____	CHEM 113L General Chemistry I Lab	1	_____	CHEM 114L General Chemistry II Lab	1
_____	MATH 129 Calculus I	4	_____	MATH 130 Calculus II	4
_____	CORE	3	_____	CORE	3
_____	CORE 090 First Year Experience	1			
		16			**15**
	2nd Year - Fall			**2nd Year – Spring**	
_____	PHYS 231 Modern Physics	3	_____	PHYS 330 Classical Mechanics	3
_____	PHYS 231L Modern Physics Lab	1	_____	PHYS Elective	3
_____	MATH 231 Calculus III	4	_____	MATH 238 Differential Equations	3
_____	MATH 237 Applied Linear Algebra	3	_____	CORE	3
_____	CORE	3	_____	Free Elective[2]	3
_____	CORE	3			
		17			**15**
	3rd Year – Fall			**3rd Year – Spring**	
_____	PHYS 371 Electricity & Magnetism I	3	_____	PHYS Elective	3
_____	PHYS Elective	3	_____	CORE	3
_____	CORE	3	_____	CORE	3
_____	CORE	3	_____	CORE	3
_____	Free Elective[2]	3	_____	Free Elective[2]	3
		15			**15**
	4th Year - Fall			**4th Year - Spring**	
_____	PHYS 350 Thermodynamics & Stat. Mechanics	3	_____	PHYS 440 Quantum Mechanics	3
_____	CORE	3	_____	CORE	3
_____	CORE	3	_____	CORE	3
_____	Free Elective[2]	3	_____	Free Elective[2]	3
_____	Free Elective[2]	3	_____	PHYS 490 Senior Seminar	2
		15			**14**

Total Credits Required for Graduation = 122